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I, JONNE YABSLEY, TEAM LEADER EXAMINATION SUPPORT AND
SALES hereby certify that annexed is a true copy of the Provisional specification
in connection with Application No. 2003904680 for a patent by CAPRICE
WINDOW ACCESSORIES PTY LTD as filed on 29 August 2003.

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AUSTRALIA
Patents Act 1990

PROVISIONAL SPECIFICATION

Applicant(s):

CAPRICE WINDOW ACCESSORIES PTY LTD

Invention Title:

WINDOW COVER

The invention is described in the following statement:

WINDOW COVER

Field of the Invention

This invention relates to a window cover such as a blind
5 or curtain. The invention has particular application to
Roman blinds.

Background Art

Blinds and curtains are normally drawn closed or opened by
10 a draw cord which is pulled to cause the blind or curtain
to open or close. In many blinds, the draw cord forms a
loop at the side of the blind or curtain and extends
towards the bottom of the curtain.

15 The loop in the draw cord provides a significant safety
hazard, particularly for small children, because a small
child may become entangled in the draw cord and strangle.

To prevent this from happening, many blinds and curtains
20 now provide draw cords which do not form a loop at the
side of a curtain, but rather are cut so that two strands
are provided, one of which can be used to open the blind
or curtain and the other to close the curtain.

25 However, in some forms of blind it is not possible to do
away with the loop-type configuration, or to provide a
draw cord which cannot be formed into a loop during some
condition of the blind, which may offer a safety hazard.

30 Summary of the Invention

The object of the invention is to overcome this problem.

The invention may be said to reside in a window cover
comprising:

- 35 a window cover portion moveable between an open
position and a closed position;
 a draw cord for opening and closing the window

cover; and

a coupling member in the draw cord, the coupling member having a first component with a first engaging portion, and a second component with a second engaging portion for engaging with the first engaging portion, so that, should a load be applied to the draw cord, the draw cord will separate at the first and second components to thereby prevent the formation of a loop which may provide a choking hazard to a child.

Thus, blinds or curtains which require a looped configuration, or which have a draw cord which can be formed into a loop during operation of the window cover, or when the window cover is in a particular configuration, can still enable the loop configuration to be formed, but if a child becomes entangled in the cord, as soon as any load is applied to the cord, the cord can separate at the connecting member so the cord will not form a choking hazard.

Preferably the first engaging portion comprises a generally part spherical head portion, and the second engaging portion comprises a generally spherical socket for receiving the spherical head so that when a load is applied to the cord, the head can pull out of the socket.

Preferably the first component comprises a hollow bore having an enlarged diameter portion so that a first portion of the cord can be inserted through the bore and tied to form a knot so that the knot can be pulled back into the bore and located in a large diameter portion, and wherein the other component also has a bore having an enlarged diameter portion so that the other part of the cord can be inserted through the bore and tied to form a knot and so the knot can be pulled back into the large diameter portion.

Preferably the blind is a Roman blind having a plurality of rings coupled to portions of the Roman blind, the draw cord passing through the rings, and the connector member being dimensioned so that the connector member can also
5 pass through the rings.

In one embodiment of the invention, the coupling member is arranged in the draw cord by connecting the first component to a first part of the draw cord and the second
10 component to a second part of the draw cord.

However, in another embodiment, the coupling member is connected in the draw cord by connecting the first component to the window cover and attaching the second
15 component to the draw cord.

In a second embodiment of the invention, the first component of the coupling member may comprise a triangular shaped body having a pair of oblique arms and a base, a
20 sleeve extending from the oblique arms at the apex of the oblique arms, the sleeve having an internal abutment, and the second component comprises a resilient peg having a pair of legs which have feet for registry behind the
25 abutment so that when the load is applied to the cord the feet can pull over the abutment because of the resilient nature of the peg, and the first and second components can release from one another.

Preferably, the first component is connected to the blind
30 by a saddle which is sewn to the blind and which passes over the base of the triangular body.

In a still further embodiment, the coupling member described above can be arranged so a first part of the
35 cord is connected to the first component and a second part of the cord is connected to the second component with the coupling member being arranged at an upper portion of the

blind.

Preferably the rings include a split or gap so the draw
cord can pull through the split or gap of the rings when a
5 load is applied to the draw cord.

Preferably the split or gap is defined by a cut in the
ring which is located at a portion of the ring remote from
the blind.

10

In one embodiment the gap can be sized larger than the
width or diameter of the cord. However, in the preferred
embodiment the gap is less than the width or diameter of
the cord and the parts of the ring adjacent the cut or gap
15 are resilient so those parts can flex to enable a cord to
pass through the cut or gap when a load is applied to the
cord and the cord in turn applies a load to the rings.

Preferably the rings have indentations to enable the rings
20 to be sewn to the blind so that the rings will not move
through the stitching and therefore displace the split or
gap from a position remote from the blind.

Preferably the connector member separates when a load of
25 more than about 1.5 Kg (about 3 pounds) is applied to the
draw cord.

Brief Description of the Drawings

A preferred embodiment of the invention will be described,
30 by way of example, with reference to the accompanying
drawings in which:

Figure 1 is a rear view of a Roman blind
according to the preferred embodiment; and

Figure 2 is a detailed view of part of the blind
35 of Figure 1;

Figure 3 is a rear view of a Roman blind
according to a second embodiment;

Figure 4 is a detailed view of part of the embodiment of Figure 3;

Figure 5 is a view of a ring used in a roman blind according to the preferred embodiment of the invention; and

Figure 6 is a side view of the blind including the ring of Figure 5 to illustrate the operation of the ring of Figure 5.

10 Detailed Description of the Preferred Embodiments

With reference to the drawings, the invention is exemplified with reference to a Roman blind. However, it should be understood that window covers of other types may also embody the invention.

15

With reference to Figure 1, a Roman blind 10 is shown which has a plurality of blind sections 12, 14 and 16 which overlap one another when the blind is in the open condition, and which drop to cover a window opening when the blind is closed. Each of the sections 12, 14 and 16 is provided with a ring 18 which may be semi-circular in configuration, and an end ring 21 is provided on the bottom section 30 of the blind. A draw cord 50 passes through the rings 18 and 21 to a pulley arrangement 32 at the top of the blind and then extends down beside the blind as shown by 50' in Figure 1. The cord 51 may be provided in two strands which are cut, rather than form a loop, so that one of the strands is pulled to open the blind and the other is pulled to close the blind. The cord 50 is provided with a connector member 52 which, when the blind is in the open configuration shown in Figure 1, is generally adjacent the pulley 32. When the blind is to be opened, the connector 52 will move downwardly through the rings 18 as the segments 12, 14, 16 drop relative to one another.

When the blind is in the open configuration, the

possibility exists that the draw cord 50 between the ring 21 and the pulley arrangement 33 can be pulled into a loop which may provide a strangling hazard to a child. In order to prevent this from happening, the connector member 52 is provided which will break apart when a predetermined load is applied to the cord 50 such as a load greater than 3 pounds so that the loop will not form and therefore a strangling hazard will not result.

Figure 2 shows a more detailed view of the connector member 52. The connector member 52 has a first component 60 which has a generally spherical head 62 which is defined by a circumferential groove 64. A bore 66 extends all of the way through the component 60 and has a large diameter portion 66' towards its lower end. Draw cord 50 is cut and a first part 50a is passed through the bore 66 and then tied to form a knot 53. The draw cord part 50a is then pulled upwardly in the direction of arrow A so the knot 53 returns to the enlarged diameter bore 66' and will seat at the transition 67 between the large diameter portion 66' and the more narrow diameter portion 66'' in Figure 2.

The connector 52 has a second component 70 which has a generally spherical socket 72 which receives the head 62. The component 60 is also provided with a bore 74 which has an enlarged diameter portion 74' and a more narrow diameter portion 74''. The draw cord part 50b which is cut from the part 50a is passed through the bore 74 and is tied to form a knot 55. The knot 55 is drawn back into the component 70 by pulling the cord 50b in the direction of arrow B so that the knot registers at the transition 59 between the large diameter bore 74' and the more narrow diameter bore portion 74''.

If a load is applied to the cord 50, such as in the direction of arrow B shown in Figure 2, the load will pull

the socket 72 free of the head 62 to break the connector 52 as previously described, and thereby prevent a loop from forming in the draw cord 50 between the pulley arrangement 32 and the ring 21.

5

Thus, a loop which may form a choking hazard is therefore prevented because as soon as any load is applied to the cord, such as may occur if a child was to become entangled in the cord 50, the weight of the child will cause the connector 52 to release, thereby breaking the loop to prevent a strangling hazard.

The load at which the connector member 52 releases can be selected depending on the relative rigidity of the socket 72 compared to the head 62 and, depending on the application, may be less than 3 pounds or more than 3 pounds.

Figures 3 and 4 show a second embodiment of the invention also applied to a Roman blind 10. This embodiment shows the sections 12, 14 and 16 as well as bottom section 30 and top section 31. The sections are separated by a wooden slat 35 and the sections 12, 14 and 16 are provided with D rings 18, as in the earlier embodiment. A head rail 40 is arranged at the top of the blind 10 for securing the blind 10 to a wall adjacent a window. The head rail 40 carries the pulley and locking arrangement 42 and pulley arrangement 44 for draw cords 46 and 47. The draw cord 46 passes through the pulley and locking arrangement 42 and has a bead 49 at its free end. The draw cord 47 passes through the pulley arrangement 44 and the pulley and locking arrangement 42 and has a bead 51 at its end. The pulley arrangements 42 and 44 are conventional, and therefore need not be described in detail. In order to raise the blind, the cords 49 and 51 are pulled downwardly, and the blind can be locked in a raised position by moving the end parts of the cords 46a

and 47a laterally. The blind is released by an opposite type movement, and by releasing the cords 46 and 47 so the cords can drop through the pulley arrangements 42 and 44.

- 5 Coupling members 100 are arranged at the bottom of the cords 47 and 48. Once again, the coupling members are provided with a first component 101 (see Figure 4) and a second component 102. The first component 101 is attached to the blind 10 and the second component 102 is attached to the respective draw cord 46 or 47.

As is best shown in Figure 4, the component 101 has a triangular body 105 which has oblique arms 106 and 107 and a base 108. The base 108 is connected to the curtain 10 by a cloth saddle 103 which is sewn to the blind 10 and wraps over the base 108. The body 105 has a sleeve 109 which is hollow and which is provided with internal abutment 110.

- 20 The second component 102 is in the form of a peg 120 having legs 111 and 112 which have feet 113 and 114. The peg 120 is resilient so that the legs 112 can move towards one another to close slot 115 but are biased outwardly by the resiliency of the peg 120 towards the position shown in Figure 4.

In order to connect the component 101 to the component 102, the legs 111 and 112 are inserted into sleeve 109. The insertion of the legs is facilitated by the inclined bottom surfaces 119 of the feet 113 and 114 which facilitate in pushing the legs together to close the slot so the legs can pass into the recess and then move downwardly so that the feet locate over the abutment 110 again by the legs being pushed together and further closing the slot 115. When the feet 113 and 114 locate behind the abutment 110, the legs 111 bias outwardly so the legs are fully retained by engagement of the feet 113

and 114 behind the abutment 110.

As is best shown in Figure 4, cord 46 (and cord 47 of the other connector shown in Figure 3) is connected to the
5 component 102 by tying the cord 46 through a hole 119 in the peg 120.

Once again, the coupling member 100 is adapted to release when a predetermined load is applied to the cord 46, such
10 as a load of about 31bs. Thus, if a child becomes entangled in the cords 46 and 47, rather than form a loop which may strangle a child, the coupling member 100 will simply release, thereby preventing the formation of a loop in which a child can become tangled.

15 As in the earlier embodiments, the component 102 is sized so that it can easily pull through the D rings 18 of the blind 10 if necessary.

20 The coupling member shown in Figure 4 can also be used in the same fashion as Figures 1 and 2, in which the coupling member is located in the cord by connecting one component of the coupling member to one part of the cord, and the other component to another part of the cord rather than
25 connecting one of the components directly to the blind. Such an embodiment may be used in roll up blinds or other forms of blinds, and a connector may be located at a top part of the blind in the draw cord.

30 If this is the case, the connector can be turned upside down and the component 101 can be easily connected to one part of the cord by tying the cord through opening 121 of the component 102.

35 Figure 5 is a view of one of the rings 18 according to the preferred embodiment of the invention. As shown in Figure 5, the ring 18 is provided with a gap ~~or cut~~ 70 which is

preferably of slightly smaller width than the diameter or width of the cord 46 (or 47). The gap 70 is defined by side parts 72 of the ring 18 and can generally be formed by simply forming a cut or space in the ring 18 so the ring is not completely "annular" when the ring 18 is moulded. In other embodiments, the ring 18 could be provided with a split and the parts 72 could effectively touch one another. The ring 18 is generally formed from plastics material and the parts 72 are therefore resilient. Preferably the ring 18 is slightly oval in shape, as best shown in Figure 5, and includes a base portion 73 which includes indentations or undulations 75 to facilitate sewing of the ring 18 to the blind 30 by stitching 74. The indentations 75 ensure that the ring 18 is sewn to the blind 30 so the ring 18 cannot slide through the stitching 74, and thereby maintains the gap or split 70 at a position which is remote from the blind 30 when the ring 18 stands out from the blind 18 at an angle of about 90°.

The purpose of the gap 70 is to enable the cord 50 to release from the ring 18 if a load is applied to the cord 18 and that load is applied to the ring 18 rather than through to the coupling member 100.

As is shown in Figure 6, it is possible that when the blind is partly in the closed condition and a load is applied to the cord 46, such as in the direction of arrow Z in Figure 6, the load may be taken by the ring 18 and not applied through to the coupling member 100, and therefore the coupling member 100 will not release in the manner previously described. In this instance, all of the load is taken by the ring 18 rather than transmitting through to the coupling member 100. However, according to the preferred embodiment, because the ring 18 includes the gap or cut 70 when the load is applied to the cord 50 in the direction of arrow Z and that load is then transmitted

to the ring 18, the cord 46 will pull through the gap 70 by slightly deforming the parts 72 of the ring 18, and therefore release from the ring 18. This will enable the load to be transmitted to the coupling member 100 and for the coupling member 100 to release in the manner previously described.

Thus, the embodiment shown in Figure 5 overcomes the possibility that a child may become entangled in the cord 50 and the load not be transmitted through to the coupling member 100 so the coupling member releases. By ensuring that the cord 50 can release from the rings 18, this ensures that the load will be transmitted through to the coupling member 100 and the coupling member 100 will release as previously described, and therefore avoid the possibility of a strangling hazard.

Whilst in the preferred embodiment of the invention, two cords 46 and 47 are provided, more cords may be provided to ensure that the cords are able to support the weight of the blind during normal opening and closing movement of the blind without causing the coupling member 100 to release. Thus, if the coupling member releases with a load of three pounds, each cord 46, 47, etc. should take less than three pound load during normal operation of the blind.

Obviously all of the cords associated with the blind will be provided D-rings 18 of the type described with reference to Figure 5.

In the claims which follow and in the preceding description of the invention, except where the context requires otherwise due to express language or necessary implication, the word "comprise", or variations such as "comprises" or "comprising", is used in an inclusive sense, i.e. to specify the presence of the stated features

but not to preclude the presence or addition of further features in various embodiments of the invention.

5 Since modifications within the spirit and scope of the invention may readily be effected by persons skilled within the art, it is to be understood that this invention is not limited to the particular embodiment described by way of example hereinabove.

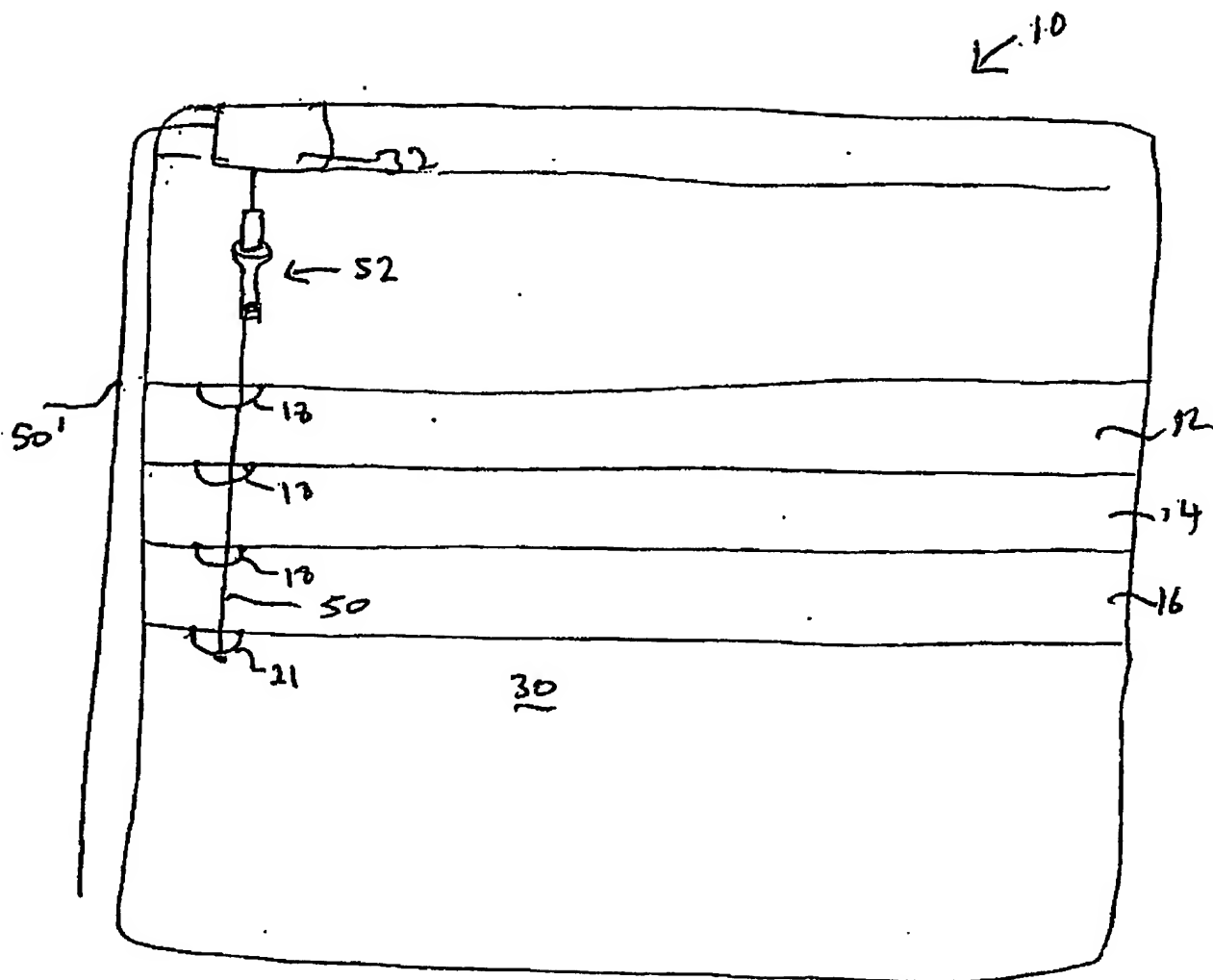


Fig 1

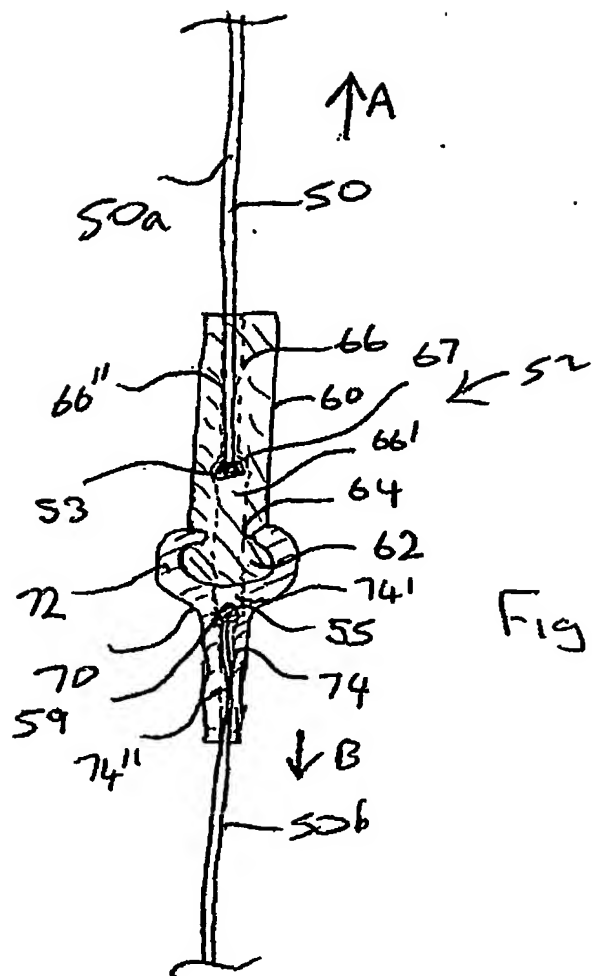


Fig 2

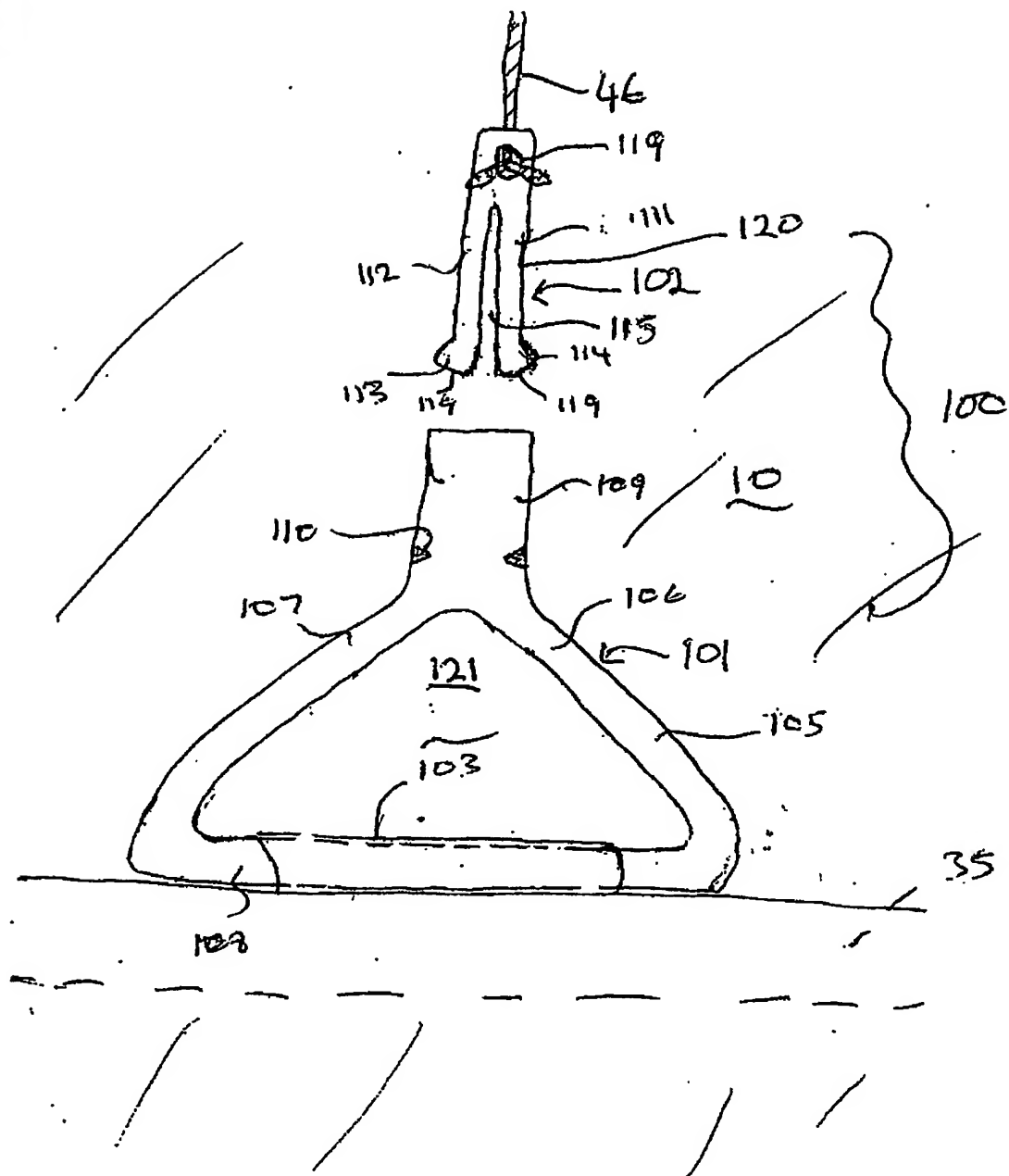


Fig 4

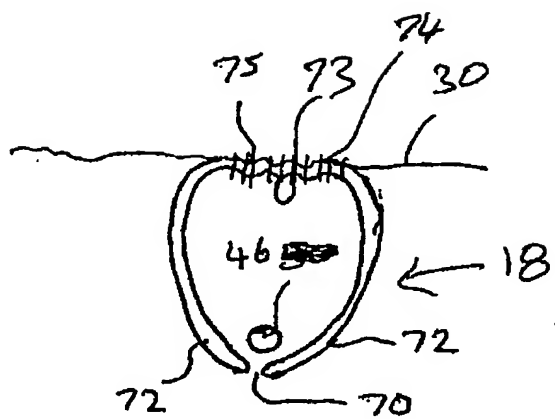


Fig 5

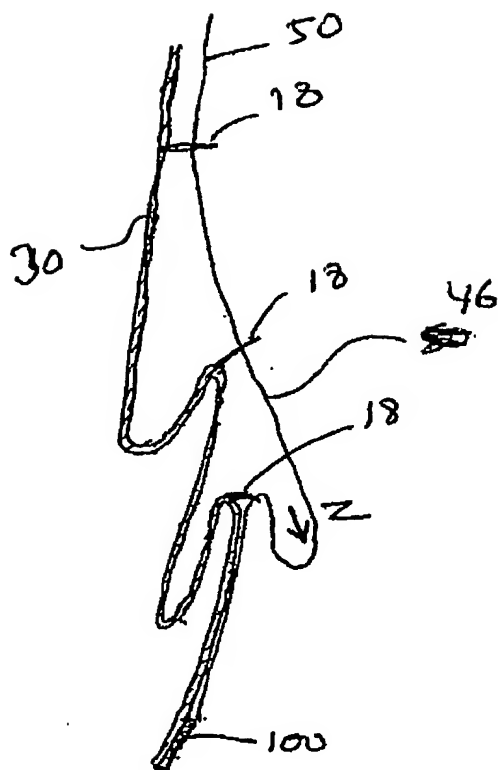


Fig 6

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